THE GENESEE FARMER.

Vol. IV. ROCHESTER, JANUARY 25, 1834. No. 4.

By Luther Tucker & Co.
EDITORS AND PUBLISHERS.

TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2.00 if payment is made at the time of subscribing.

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☞ New subscribers can be supplied with the first, second and third volumes.

THE GENESEE FARMER.

SATURDAY, JANUARY 25, 1834.

Extracts from Letters.

One of our subscribers in *Canandaigua*, in a letter enclosing the advance payment for himself, and a new subscriber which he had obtained, says:—

"I have solicited several of my neighbors to take the Farmer, but they know too much of farming to be instructed by books —The two living nearest me, expressed their surprise last spring that I should be able to manure twice the land that either of them did, although I had less stock, and inquired how I managed. I told them that I foddered my cattle in the barn yard, where their dung was dropped, while *their* cattle were foddered in the field, and their dung scattered to the winds. In consequence of this practice, their mowing grounds were poached and unfit for the scythe, while mine were smooth, my cattle being all shut out from my meadows before the winter breaks up."

We thank the writer of the above for his truly valuable communications, and shall be gratified to have him continue to employ some of his leisure hours to fill a space in the Farmer.

A subscriber in *Newark*, Wayne county, after detailing his successful effort in the culture of Ruta Baga, which may be found on another page, says:—

"Your last number brought me a hint of my negligence in obtaining new subscribers for the Farmer. I yesterday and to-day sallied forth partly for that purpose, and the yield was almost as good as my turneps. You are requested to send the fourth volume to the following persons:—[He then mentions the names of SIX persons, and continues]—These new subscribers are all good substantial farmers, and they, as well as most others, when I commenced the third volume, called me the *Book* farmer. This made it difficult for me to get my workmen to alter their mode of farming; but, sir, something has made a change. The cause is easily guessed by the willingness manifested to become Book farmers. I hope ere another year there will be fifty farmers in this town (Arcadia) willing to take and read your paper."

We hope the writer of the preceding will furnish us with more of the results of his farming operations, for which we shall be as grateful as for his continued exertions to extend the circulation of our paper.

A gentleman in *Cayuga*, who sends $4 in advance for himself and a new subscriber, thus concludes:

"Your paper is one with which I am much pleased—more than with any other periodical I have ever read; and I hope you and your correspondents will persevere, and write and encourage, until every farmer and mechanic, and professional man, shall take and read it, and enjoy the benefits to be derived from the connection of scientific and agricultural pursuits."

A letter from Hudson, after mentioning the names of two new subscribers, says:

"It will give me pleasure to aid in the circulation of the paper as far as is in my power. I shall do it from love of country—love of fruits and flowers—love of social refinement and the arts of peace—love of all things dear in the clustering associations of *home*."

From a private letter of an esteemed friend, we make the following extract. It is, as are all the other letters from which we have quoted, from a practical farmer:

"I take pleasure in saying, that the reputation of the Genesee Farmer is well established, and that it stands high in public estimation. If its patronage is not already great, I think it will become so in a short time. I have been surprised at the increasing number of contributors for your pages, and still more so, to find that they perform their work with so great ability. It is, I believe, admitted, that the Genesee Farmer is now the most useful agricultural journal that circulates in the United States."

The following is from *Milton*, Saratoga county. To the writer we are indebted for several subscribers, as well as for a number of the productions of his pen,—which we hope he will soon resume:

"I cannot close this letter without congratulating you on your success in the publication of the Genesee Farmer. I know not what good works you may have accomplished beside this, but so far as relates to the subject under notice, I am constrained to express my warmest admiration. The Genesee Farmer is destined to bring about a vast amount of good. It has already given, and will in a great degree give, a spur to the agricultural interest of the state of New-York It will not only help materially to fill our pockets with money, but our heads with just the information which farmers need. I wish every farmer in the state possessed it, and what little I can do shall be done for its extension—and shall be done cheerfully, believing that whoever has it will be benefited by it."

We have selected the above extracts from a large number of letters expressing similar opinions, for the same reason that we have hereto published complimentary notices of our paper,—to show those who have contributed so liberally to the pages of the Farmer, the estimation in which their writings are held, for it is to them the Genesee Farmer owes its high reputation, and in the belief that it will encourage others to take up their pens. During the three years of its existence, the Genesee Farmer has contained a larger proportion of valuable original communications than any similar work ever published in our country; and most of those favors have been from the pens of *Practical Farmers*,—many of them men who had not before been in the habit of writing for the press. At the end of our first volume many of our friends feared that the writers who had done so much for it, would give out when the novelty of the thing had passed away; and we occasionally, even now, hear fears expressed that the paper will not be able to sustain its high character; but a three year's experience has tested the question, and proved that with proper exertions on the part of the conductor, the Farmer will go on increasing in usefulness from year to year hereafter as it has done heretofore. Our old correspondents have continued their efforts with a spirited devotion to the cause which we could have hardly anticipated; and within a few months past we have had the pleasure of welcoming to our pages several new correspondents from whom our readers may expect much valuable information.

GREAT YIELD.—Mr. Burden Hance, of Shrewsbury, N. J. raised seven hundred bushels of carrots from three-quarters of an acre of ground.

Change of Climate.

A notion has extensively prevailed among the learned that though the geographical climate is fixed and unalterable, yet the physical climate is subject to various but permanent changes, and many of the illiterate have adopted the latter conclusion. We have seen no good reason in its favor however, and we lately made some remarks to show our dissent. Instead of looking for such changes, we think it more philosophical to take the seasons as they come. We might indeed be gratified like others, with a peep at futurity; but we are satisfied that it is not to be had; and have quietly resigned ourselves to our destiny,—or rather to our condition. All our researches have confirmed us in this impression; and since writing the remarks in our former paper, we have found additional confirmation. The following article is from the *Boston Mercantile Journal*, and of our friends who have reflected on such subjects, it will scarcely be necessary for us to bespeak an attentive perusal. It is an interesting and valuable document:

"The completest Meteorological Journal ever kept in this country, was that of the late Dr. *Holyoke* of Salem, which begins with 1786, and continues to the end of the year 1821, a period of 36 years; and is presented in the same number of volumes of M.S.—all in the Doctor's neat and accurate hand writing. It comprises two daily observations, during all this time, with the barometer—eight with the thermometer—four of the winds—generally four with the hygrometer—and four of the state of the weather, besides numerous occasional notices of various irregular phenomena. A considerable portion of this valuable record, perhaps the most laborious of any kind ever composed in this country by one individual, has been published among the memoirs of the American Academy of Arts and Sciences, under the supervision of Dr. Hale of this city.

"In regard to *the progressive amelioration of our climate*, it has been generally believed that the progress of cultivation and population has had a material effect; but it would seem this *does not hold true* of the section of country in question, during a period when these changes have taken place, in a very considerable degree. The mean of the *first* 10 years is 48.77° and that of the *last* 10 years 47.35°. The highest year in the whole series, is 1793; the lowest 1812. It also appears that the common impression is a mistaken one—that the *spring* advances more rapidly in proportion to the rest of the year, than it did formerly."

Management of Calves.

The management of calves designed for veal, is differerent among different farmers; but in some neighborhoods, the usual period of keeping them is about four weeks. A friend of ours has been very successful for many years in producing veal of the finest quality, by the following method: During the first fortnight, the calf is allowed one half the milk, three quarters during the third week, and the whole during the fourth week. This is his rule for common cows. In extraordinary cases, he allows more or less, according to circumstances; but deems it of great importance that the calf should be *full fed* during the last week.

The reason which is given for this practice, is, that if the calf takes all the milk at first, it will grow fast, and soon become too large for its supply of nourishment; but if it be stinted at first,

its mother's milk will be commonly sufficient to fatten it at the close of the month.

Cattle Husbandry.

[*Continued from page* 19.]

MIDDLE HORNS—DEVON COW.

"There are few things more remarkable about the Devonshire cattle than the comparative smallness of the cow. The bull is a great deal less than the ox, and the cow almost as much smaller than the bull. This, however, is of some advantage, and the breeders are aware of it; for, although it may not be necessary to have a large bull, and especially as those of any extraordinary size are seldom handsome in all their points, but somehow or other present coarseness or deformity, it is almost impossible to procure large and serviceable oxen, except from a somewhat *roomy* cow. These cows, however, although small, possess that roundness and projection of two or three of the last ribs, which make them actually more *roomy* than a careless examination of them would indicate. The cow is particularly distinguished for her full round clear eye, the gold colored circle round the eye, and the same color prevailing on the inside skin of the ear. The countenance cheerful, the muzzle orange or yellow, but the rest of the face having nothing of black, or even white about it. The jaws free from thickness, and the throat free from dewlap. The points of the back and the hind quarters different from those of other breeds, having more of roundness and beauty, and being free from most of those angles by which good milkers are sometimes distinguished."

QUALITIES OF THE DEVONS.

"Their qualities may be referred to three points; their working, fattening and milking.

"Where the ground is not too heavy the Devonshire oxen are unrivaled at the plough. They have a quickness of action which no other breed can equal, and which very few horses exceed. They have also a degree of docility and goodness of temper, and also stoutness and honesty of work, to which many teams of horses cannot pretend. Vancouver, in his survey of Devonshire, says, that it is a common day's work on fallow land, for four steers to plough two acres with a double furrow plough. Four good Devon steers will do as much work in a field, or on the road, as any three horses, and in as quick, and often quicker, time, although many farmers calculate two oxen as equal to one horse. The principal objection to the Devonshire oxen is, that they have not sufficient strength for tenacious clayey soils: they will, however, exert their strength to the utmost, and stand many a dead pull, which few horses could be induced or forced to attempt. They are uniformly worked in yokes, and not in collars. Four oxen, or six growing steers.

"There is a peculiarity in driving the ox-team, which is very pleasing to the stranger, and the remembrance of which, connected with his early days, the native does not soon lose. A man and a boy attend each team; the boy chants that which can scarcely be regarded as any distinct tune, but which is a very pleasing succession of sounds, resembling the counter-tenor in the service of the cathedral. He sings away with unrivaled lungs, as he trudges along almost from morning till night, while every now and then the ploughman, as he directs the movements of the team, puts in his lower notes, but in perfect concord. When the traveler stops in one of Devonshire valleys, and hears this simple music from the drivers of the ploughs on the slope of the hill on either side, he experiences a pleasure which this operation of husbandry would scarcely be supposed to be capable of affording. This chanting is said to animate the oxen somewhat in the same way as the musical bells that are so prevalent in the same country. Certainly the oxen move along with an agility that would scarcely be expected from cattle; and the train may be watched a long time without one harsh word being heard, or the goad or whip applied. The opponents of ox-husbandry should visit the valleys of North or South Devon, to see what this animal is capable of performing, and how he performs it.

"The profit derived from the use of oxen in this district arises from the activity to which they are trained, and which is unknown in any other part of the kingdom. During harvest time, and in catching weather, they are sometimes trotted along with the empty wagons, at the rate of six miles an hour, a degree of speed which no other ox but the Devon has been able to withstand.

"They are usually taken into the work at about two years, or twenty-six months old; and they are worked till they are four, or five or six; they are then grazed, or kept on hay, and in ten or twelve months, and without any further trouble, they are fit for the market. If the grass land is good, no corn, or cake, or turneps, are required for the first winter; but, of course, for a second winter, these must be added. The grazier likes this breed best at five years old, and they will usually, when taken from the plough, fetch as much money as at six. At eight or nine years, or older, they are rapidly declining in value.

"Lord Somerville states, that after having been worked lightly on the hills for two years, they are bought at four years old by the tillage farmer of the vales, and taken into hard work from four to six; and, what deserves consideration, an ox must be thus worked in order for him to attain his fullest size. If he is kept idle until he is five or six, he will invariably be stinted in his growth. At six he reaches his full stature, unless he is naturally disposed to be of more than ordinary size, and then he continues to grow for another half year.

"Their next quality is their disposition to fatten, and very few rival them here. They do not, indeed, attain the great weight of some breeds; but, in a given time, they acquire more flesh, and with less consumption of food, and their flesh is beautiful in its kind. It is of that mottled, marbled character, so pleasing to the eye, and to the taste. Some very satisfactory experiments have been made on this point.

"Mr. Carpenter, a very intelligent farmer, informs us, that the Duke of Bedford had some prime Hereford oxen sent to his Tavistock estate in the month of April, and he ordered some Devons to be bought at the latter end of the same month. The Devons were not in so good condition as the Herefords when they were put to grass, and cost about 5*l.* a head less than the Hereford; but at the latter end of December, when they were all sold to the butcher, the Devons were superior in fatness and weight.

"A more satisfactory experiment was made by the same nobleman. Six oxen were selected in Nov. 16, and fed until Dec. 10, the following year, and the following was the result:

"An experiment of the same nature was made, in order to compare the fattening properties of the Glamorgan with the Devon. They were fed from Jan. 6 to Dec. 1, and the following was the result:

		First weight.			Sec. weight.			Gained.			Oil Cake.	Turneps.	Hay.
		cwt	qrs.	lbs.	cwt.	qrs.	lbs	cwt.	qrs.	lbs.	lbs.	lbs.	lbs.
1	Hereford,	17	0	1	18	3	0	1	2	27	423	2700	487
2	do.	18	1	0	21	0	25	2	3	25	423	2712	432
3	Devon,	14	1	7	17	2	7	3	1	0	438	2668	295
4	do.	14	2	4	19	1	0	4	2	14	442	2056	442
5	Sussex,	16	2	0	19	3	0	3	1	0	432	2655	392
6	Leicester,	15	2	14	18	2	0	2	3	14	434	2652	400

		First weight.			Sec. weight			Gained.			or stone.
		cwt.	qrs.	lbs.	cwt	qrs.	lbs.	cwt.	qrs.	lbs.	
1	Devon,	13	1	7	17	3	7	4	2	0	63
2	do.	16	0	10	20	3	14	4	3	2	67
3	Glamorgan,	13	3	0	16	0	14	3	3	18	54 6

"We are aware that experiments have been instituted with different results.

"For the dairy, the North Devons must be acknowledged to be inferior to several other breeds. Their milk is good, and yields more than average proportion of cream and butter;* but it is deficient in quantity. There are those, however, and no mean judges, who deny this, and select the North Devons even for the dairy.

"Mr. Conyers, of Copt Hall, near Epping, a district almost exclusively devoted to the dairy, preferred the North Devons, on account of their large produce, whether in milk, butter or by suckling. He thought that they held their milk longer than any other sort that he had tried; that they were liable to fewer disorders in their udders; and that being of small size, they did not eat more than half what larger cows consumed. He thus sums up his account of them: 'Upon average, ten cows gave me five dozen pounds of butter per week in the summer, and two dozen in the winter. A good North Devon cow fats two calves a year. My 30 North Devon cows have this year, upon an average, produced a profit of £13 14 0 per cow.' [About $61.] As nurses they are excellent; and the calves thrive from their small quantity of milk more rapidly than could possibly be expected."

MISCELLANEOUS NOTICES.

Before we proceed in our extracts in relation to the Short Horns, we will state some facts which may be interesting to the cattle farmer, in a brief way, which we glean from much that would be uninteresting to him, in the work before us.

The Hereford, Sussex and Glamorganshire cattle, noticed in the above tables, have probably sprung from the same origin as the North Devons. They are considered as belonging to the same general class. The Herefords are larger than the Devons, have generally white faces, throats and bellies, are of a dark red, sometimes brown or brindled. The Sussex are also larger, but coarser, than the Devons, generally of a bright chestnut color. The Glamorganshire is a Welch stock, smaller than the Devons, owing to the scanty food which the mountains yield. None of these breeds are considered equal to the Devons for the plough. The Herefords are far worse milkers than the Devons, and the same remark will apply to the other two kinds. The Leicester belongs to the class of *long horns*, of which we shall have occasion more particulally to speak hereafter.

Various attempts to improve the Devons in weight have been attempted, as with the Hereford, Sussex and Durham breeds; but with one exception they seem to have been unsuccessful: a single cross with the Herefords, obtained by stealth, is said to have produced some of the most perfect of the Devon family. A cross with the Guernsey has been thought to improve their quality for the dairy. The Devon stock sells high. They have sold as high as 100 guineas, and a lot of twelve cows, the stock of Mr. Rogers, averaged at public sale, £30 or $133 each.

Calves are preferred to be dropped late. They are permitted to suck three times a day for a week. They are then used to the finger, and warm new milk is given for three weeks longer. For two months after it has plenty of warm scalded milk, mixed with a little finely powdered linseed cake (for which corn meal offers an excellent substitute) and entirely weaned at four months old.

"The grand secret of breeding is to suit the

* The difference in the richness of milk in oleaginous properties often amounts to one-third. The writer of this note tested the milk of five cows, about the same time, with the barometer. The cream was found to vary from nine to fifteen per cent.

breed to the soil and climate." The Devons deteriorate in some counties, and improve in others.

Clouted cream, considered in Devonshire a great luxury with coffee, tarts or strawberries, is thus prepared: The milk stands in a bell-metal vessel 24 hours, when it is placed over a small wood fire, and heat gradually. In an hour and a half, when it is approaching a state of *simmering*, the vessel is struck every now and then with the knuckle, or is very carefully watched. As soon as it ceases to ring, or the first bubble appears, and before it boils, it is taken off and set by 24 hours more. At the end of this time, the cream will have become wholly separated, will be thick enough to cut with a knife, and may be skimmed off. The dairy people say, there is economy in this process;—that five pounds of butter can be obtained in this way where only four could be obtained in the ordinary way, and that the butter is more saleable, on account of its pleasant taste.

To keep up in size and proof a good growth, it is deemed necessary to change the bull every two years. The Somerset farmers think that frequent bleedings, in small quantities, accelerate the process of fattening. The calves in this county are principally fed, if not intended to be fattened, on cheese-whey. The Herefordshire farmers insist, as the result of experience, that the breeding qualities of a cow are materially lessened, and that even her form is deteriorated, by her being inclined to give a large quantity of milk.

We find no comparison between the North Devons and the Short Horns, as to their facilities of fattening, in ordinary or extraordinary feeding. We insert, however, the following comparison of the latter with the Herefords, a branch of the Devon or middle horned stock:

"Three Herefords and three Short Horns were selected: they were put together in a straw yard on the 27th Dec. 1827, and were fed in the open yard, at the rate of one bushel of turneps per beast per day, with straw only, until May 2, 1828, when their weights were taken, and they were sent to grass.

No.		cwt.	qrs.	lbs	No.		cwt.	qrs.	lbs.
1	Hereford,	8	3	0	1	Short Horns,	9	2	0
2	do.	7	3	0	2	do.	8	2	0
3	do.	7	0	0	3	do.	9	0	0

On the 3d Nov. they were taken from grass, and put into the stable, when their weight was as follows:

No.		cwt.	qrs.	lbs.	No.		cwt.	qrs.	lbs.
1	Hereford,	11	3	0	1	Short Horns,	12	3	14
2	do.	10	2	0	2	do.	12	2	0
3	do.	10	3	0	3	do.	12	3	0

From that time to the 25th March, 1829, they consumed the following quantities of Swedish turneps and hay:

	Turneps lbs.	Hay lbs.
The Herefords,	46,665	5,065
The Short Horns,	59,430	6,779

They then weighed—

No.		cwt.	qrs.	lbs.	No.		cwt.	qrs.	lbs.
1	Hereford,	13	0	14	1	Short Horns,	14	2	0
2	do.	12	0	0	2	do.	14	1	14
3	do.	12	0	0	3	do.	14	2	14

being an increase of weight in favor of
the Short Horns of.....17 2 0
and in favor of the Herefords of.....13 2 14
and making a difference in favor of the
Short Horns of.....3 3 14
but then the Short Horns had consumed 12,775 lbs. more of turneps, and 1,714 lbs. more of hay.

"When they were all sold together at Smithfield, on the 30th March, the heavier Short Horns fetched 97*l.* and the lighter Herefords 96*l.*, being an overplus of only 1*l.* to pay for the enormous difference in the food consumed, and the greater price given on account of the heavier weight of the Short Horns at the commencement of the experiment."

In Gloucester, celebrated for its cheese, and where the dairy is the great object, a great mixture prevails, though the *middle horn* varieties preponderate. The cows yield from four to six gallons of good milk per day. The calves are reared here pretty much in the same way as in Devonshire, as already noted—on skimmed milk, whey and linseed tea. Manured pastures are considered prejudicial to the dairy. The milk from them may be more abundant, but is not so rich. A farmer had two adjoining fields, one of them richly manured. His cows were put in each, in alternate weeks. When running in the manured ground, the cheese was rank, heavy and hollow, and unfit for the market: When in the other, excellent cheese was made. Frequent changes in pasture are beneficial; as nothing is more conducive to the general health of the animal, as well as the abundant supply of milk, as the first flush of grass in the spring, after mowing, or in fresh pasture.

Our hilly lands are adapted to permanent pasture, to the dairy and sheep husbandry. Neither will ultimately be found to succeed well upon heavy wheat lands, or upon the lighter soils adapted to alternate husbandry. The counties upon the head waters of the Hudson, Mohawk, Susquehannah, Delaware and Allegany rivers, are destined to be our great sheep and dairy districts.

As the *double* Gloucester cheese is in great repute, we shall briefly describe the process of making it, merely premising, that the cause of its superior quality is not satisfactorily known—some ascribing it to the soil, or rather pasture grasses, and others to the process of manufacture.

The milk is set at a temperature of 85 deg., which it is desirable should be natural, that is from the cow, rather than artificial, by heating. The coloring matter and rennet are then added,—the rennet old and free from smell. The process of cutting and breaking the curd follows next; and when it is sufficiently broken it is put into vats, and pressed well down. These vats are here, or rather in New England, termed *cheese hoops*. The vats are filled as closely as possible,—the cheese cloth placed over all, and a little hot water is poured over the cloth, *to harden the outside of the cheese;* the curd is then turned out into the cloth, and this being carefully folded round it, the cheese is returned once more into the vat. All the vats which are to be filled are to be placed one upon another, and are subjected to the action of the press. Here they remain 24 hours, the vats of the next meal being placed underneath, and those of the preceding meal raised a tier, and dry cloths occasionally applied. In many dairies there is a second breaking of the curd, which, after having been reduced as small as possible, is scalded with a mixture of water and whey. This second and more perfect breaking down of the curd has been imagined to be the grand cause of the soft uniform substance of the cheese when it is fully made. The practice is however getting somewhat into disuse; for it is reasonably urged that this scalding and washing must extract a portion of the oleaginous part of the cheese, as washing in water dissipates this and the aroma of butter; therefore a great deal more care is taken in sufficiently reducing it with the knife, rapidly worked about the tub before the curd is put into the vat. The old farmers, however, maintain, that the whole art of making Gloucester cheese depends on the scalding process; that the salty matter of the milk and curd is thus disposed to develop itself, and to be brought so far out, as to form afterwards the uniform rich substance for which the Gloucester cheese is celebrated. No salt seems to be put into the curd: But after 24 hours the cheeses are well rubbed with salt; and this is repeated daily for four days. The cloths are now taken away, and the cheeses regularly returned to the press for four, or five, or six days, according to the state of the weather. They are then put upon the shelf, and turned twice in the day, for two or three days; and then placed in the cheese room, where they are turned once in a day for a month. They are then scraped clean, and painted red or brown, which in a few days is rubbed from the edges, and the cheese is continued to be turned once or twice every week. To prepare the rennet, *two months before it is to be used*, 12 pounds of salt are boiled in 12 gallons of water till the liquid will bear an egg; then strained, and 24 "vells," or stomachs, and 12 lemons with the rinds on, but incisions made into them, and two ounces of cloves and cinnamon, are then put into the liquor. The "single Gloucester" is *skim-milk cheese!* and it is common to take cream enough from the "double" to serve the family.

We cannot refrain from interlarding here, honorable mention of an Otsego dairy woman. Mary Brown, the worthy consort of Lemuel Brown, of Edmiston, made the last summer forty-seven hundred pounds of cheese from thirteen cows. The quality of this cheese is not excelled by hardly any that comes to market. It sold at nine cents the pound. But what is worthy of particular notice is, that Mrs. Brown's cheese was not "single Gloucester," made of skim-milk, nor "double Gloucester," deprived of a part of the cream, but real "*double Otsego*," with every particle of the cream incorporated with the curd. Mrs. B. remarks, that every pound of butter made from cheese milk, diminishes the cheese two pounds in weight, and one or two cents in price. Mrs. Brown's example should be commended by every lover of good cheese.

In Sussex, stall feeding is much practiced. Lord Egremont has his milch cows tied up the greater part of the year, alledging that he thereby saved one third of the food,—that the cows were fed with a fourth part of the usual trouble,—that more dung was made,—and that there was no poaching the ground. Mr. Glynde, a skilful farmer, found that nine oxen fed loose in the yard, ate and destroyed as much as twelve oxen that were tied up. The average weight of the Sussex ox, when fitted for market, is stated at 16 and 17 cwt., and they have gone as high as 3,000 lbs. Oxen are worked three days in a week, in winter, and fed upon straw; and when they will not bear hard work, and hard food, they are turned off to fatten. The bull is changed every two years by the best breeders, from the supposition, that the breeding *in and in* will cause the stock to degenerate.

In Glamorganshire and *Cardiganshire*, butter is the main object, and good cows average 1 cwt in the dairy season.—(*To be continued.*)

For the Genesee Farmer.

Use of the Roller.

A very small proportion of the farmers in Western New-York are provided with this valuable implement, and I am confident that very few of them would be without it, if they knew its value.

When my wheat came up in the autumn of 1832, I discovered that in one field my hired man had not sowed it evenly; but it was then, as I thought, too late to remedy it. In the spring it presented the same unpromising appearance, being so thin in many places that I anticipated a short crop. Being disappointed in receiving my clover seed for the same field as early as I wished, I was apprehensive of a failure in that also, and to prevent it, directed my son to roll the field. Witnessing the effect, in completely pulverising the crust which had formed on its surface, I was led to conclude, that the operation had not only placed the clover seed in a favorable situation to vegetate, but would benefit my wheat also; and therefore directed the residue of my wheat to be rolled. Business called me from home for several weeks, and on my return I was astonished to find that my wheat had spread so as to stand nearly as thick as I wished; and at harvest it appeared to be perfectly even, and produced a fine crop. I think that I must have gained by rolling at least one fourth. My clover seed took well.

Last spring I rolled after sowing and harrowing my oats, which came up very soon and regularly, and produced a heavy crop.

The past autumn I rolled one wheat field immediately after harrowing, and I think it came up more equally and sooner for the operation. I have also rolled a part of two other fields, in order to ascertain whether rolling in autumn is beneficial to the wheat, the result of which I may hereafter communicate. The only doubt I have as to its utility, arises from the belief that snow lying on wheat is advantageous, and a fear that rolling the ground will cause it to be more easily blown off. The above mentioned trial of rolling in the spring, is conclusive as to its benefits at that season. Another benefit resulting is, that the ground is left in so smooth a state, that the crop is much easier cut, and gathered with less waste.

I have also experienced great benefit from the use of the roller on green sward ploughed in the fall, and left in a rough state through the winter. By passing the roller over it previous to harrowing, the inequalities are removed, and the operation of harrowing rendered much more effective.

I am led to believe, that in all cases where green sward is turned under for a crop, rolling must be beneficial, even when it is to be a naked fallow, closing the interstices, and the compression having the effect to produce a more equable and thorough decomposition of the sward.

The effect of a roller on mowing grounds, is to enable the mower to cut the grass closer, and to prepare the land for the use of the horse rake; an implement which, with a horse and boy, will do the work of six men.

Now is the time for every farmer not already furnished with a roller, to procure a stick of heavy white oak two to two and a half feet diameter, and six feet long; use gudgeons made of one and a half inch iron; drive them in the center of the stick, then raise it so that the gudgeons will rest on blocks, when there will be no difficulty in bringing it to the shape of an exact cylinder. All that remains to be done, is to make a stout frame and tongue, the latter well braced. ONTARIO.

For the Genesee Farmer.

Topping and Leafing of Grape Vines.

Topping and leafing of vines in the summer after the fruit is formed and partly grown, is practiced by some with a view to the maturing and perfecting of the fruit. Experience has convinced me it is a bad practice, and one calculated to produce the contrary effect. The past season my vines were loaded with fruit. An arbor over which four luxuriant Isabellas spread, contained several bushels. Though the vines were not very thick, I thought perhaps it might be of some advantage to the fruit, to give it more exposure to the sun by not only cutting off the side shoots, but topping the branches and thinning the leaves. Topping the fruit branches, I supposed would increase the size, and forward the ripening of the fruit, by giving it a greater share of the juices which otherwise would be spent in the production of wood alone. I accordingly topped the fruit branches mostly on one side of the arbor about two joints above the fruit when the fruit was half grown; as the season advanced, when the fruit was nearly grown, but before it began to turn, I thinned out the greater part of the leaves at the lower part of the arbor, so that the fruit was quite exposed to the sun. My good spouse, looking out of the window, shook her head at me and desired me to desist, protesting that it was wrong; for the leaves were not given in vain to the plant; that they were undoubtedly of material use, necessary for the perfection of the fruit, or they would not have been given. The result was, the fruit on those branches which had been deprived of their top and part of their leaves, grew very little more, and did not ripen as soon as the other, and was very inferior in flavor to that which grew on the branches from which no leaves had been taken. My wife who looked only at the reason of the thing, was right, and I was wrong, as the result proved. The leaves undoubtedly perform the important office of preparing the juices for the fruit, separating from the sap that part of it which is necessary for the fruit's perfection. Hence, to deprive the branch of its leaves by topping and leafing, cuts off the necessary supply from the fruit. I pretend not to much knowledge in this branch of horticulture, but am of opinion that the only summer pruning which is useful to the grape vine, is the cutting out of supernumerary branches, and breaking off the side shoots so as to leave the vines sufficiently thin to admit the sun and air. If the vines run thick together, the fruit is deprived of the influence of the sun, and is sour and insipid; hence the importance of thorough fall pruning. I observed another injurious effect from this topping and leafing the fruit branches; the wood of those branches, when I came to prune in the fall, was soft, spongy, and very imperfectly ripened. I might have anticipated this effect, had I but reflected a moment upon the laws of vegetable physiology. The upper part of the branch and leaves are as necessary for the perfection of the wood below, as of the fruit. The result of this experiment is another fact, which, reasoning from analogy, shows the absurdity of the practice of topping corn before it is ripe. The grain is undoubtedly the loser by it. W. W. B.

For the Genesee Farmer.

Indian Corn.

Along the valley of the Mohawk, two varieties of the yellow corn are principally cultivated; the one a lightish yellow corn with twelve rows of kernels upon the cob, and the other a bright and deeper yellow, with only eight rows. In conversing with a very intelligent agriculturist in the city of Schenectady, I learned a fact, which has not before come within my own observation, though it may possibly be familiar to some of your readers.

It has been customary for a long period, for the Dutch settlers on the Mohawk to cultivate the twelve rowed corn, believing that as the ears were larger, and contained one third more kernels, the aggregate yield must be proportionately large. The Yankees, on the contrary, have rather inclined to the eight rowed. The intrinsic value of these two kinds have been frequently tested, and the result has proved the eight rowed corn to be the most valuable, though it is hard to make a superficial observer believe it.

Two bushels of twelve rowed ears when shelled will yield only one bushel of corn, and frequently will fall a little short. Two bushels of the same length ears of eight rowed, will yield generally a bushel and three or four quarts of shelled corn. The reason of this is, that although there is one third more kernels on the twelve rowed ear, yet the cob of the eight rowed is so much smaller and the kernel so much larger, the quantity of *shelled* corn is considerably in favor of the eight rowed. Another circumstance in favor of the eight rowed corn is, that there is generally two ears on each stock, while upon the twelve rowed, there is rarely more than one; so that on an acre of ground, the number of bushels of ears will be rather in favor of the eight rowed, though the ears are less in size. The eight rowed corn also comes to maturity about a fortnight sooner than the twelve rowed, which is a desirable quality, especially in a cold or short season.

It is an attested fact, though farmers do not seem to practice upon it, that it is as necessary to adapt the different varieties of seed to the soil, as it is the breed of cattle or sheep. One description of corn is better suited to a particular soil, than another; and so of grain. Most farmers know that the different varieties of wheat will yield more or less as they are cultivated upon different soils. It seems, then, that in the selection of seed corn for yield and profit, a careful attention should be paid to its nutritive quality; to its adaptedness to your soil; to the size and weight of the kernel, and the size of the cob; to the number of ears usually reared upon a stock; and to the early maturity of the plant.

It seems to me that sufficient attention has not been bestowed upon this subject, as there is doubtless as much difference in the yield of the different varieties of corn, as there is in any other grain or fruit. QUERCUS.

For the Genesee Farmer.

Highway Taxes.

The subject of our highways has been frequently presented to the readers of the Farmer; and indeed, the subject is of so much importance, that the attention of the public cannot be too frequently called to it. The manner in which the highway tax is now managed, is not only a burden upon the public, but is expended in the most inefficient way that it well can be.

From the observation that I have been able to make, I have no doubt that one third of the present road tax, expended as it ought to be, and as in some parts of our country it is, our roads would be in a better condition than they are. In the first place, I think our road tax is too heavy; many of our farmers feel it to be a real burden, so much so, that when called out to the task they feel a kind of indifference whether their labor is applied in the most efficient way or not. Their main concern seems to be to pass away the time by contriving how *little* they can do. Pathmasters are frequently chosen, not for their peculiar qualifications for the office, but directly the reverse; not because they will be likely to exact the *greatest* amount of labor, but the *least*.

Let then a tax be levied to be paid in money; let a man of judgment and industry be appointed to expend it; let him be furnished with a suitable team, and suitable implements for the purpose; and then, if our roads are not, in a short time, in a better condition, with far less expense, than they now are, I shall be greatly mistaken.

AGRICOLA.

For the Genesee Farmer.

Agricultural School.

MESSRS TUCKER & Co.—Recently I see in the Farmer that there is considerable gathering interest on the important subject of an Agricultural School. Suffer, if you please, sir, a few sentences to be admitted into that paper on this subject by a new hand.

It is a demonstrable fact in the annals of the world that the tilling of the earth and the cultivating of the human mind is the primordial basis of all civilized society. These two go hand in hand, are mutual help-mates in drawing man from the rude state of nature—from the ignorance and barbarity of the uncultivated savage whose mind is as unproductive as the neglected soil on which he treads, and imparting to him the blessings of civilized society, and of displaying the lofty and distinguished character of intelligent being. How, let me ask, is man to be induced to leave his fishing and his hunting, if he knows no other way to supply his wants? Or how could he prosecute with propriety, system, or advantage, the arts of agriculture without the aid of knowledge? In a word, how could the earth be cultivated unaided by the cultivation of the human mind? It is impossible. Nor do the useful arts occupy a small department in this double improvement. "Productive industry is the wealth of nations," and the great basis of all temporal enjoyment. It is that by which the world is kept alive—man cannot subsist in a civilized state without it. INTELLIGENCE is the great lever by which the whole machinery is set in motion. The cultivation of the human mind aids and excites its creative and inventive genius, developes the hidden treasures of the soul, inspires a spirit of enterprise, invention, adventure and discovery, without which, and the aid of inspiration, the immortal mind of man, together with the earth which he inhabits, would to this very hour have remained undiscovered, unexplored, and uncultivated.

Admitting, then, the above position to be correct,—which will not be denied,—of what vast importance is the subject! How immeasurable are its consequences to man in a civilized capacity. I have long been impressed with the sentiments here alluded to, but knew not till I obtained the information by reading the Farmer, that the subject of science connected with agriculture was thought of by others. I have thought much on the subject, and the more I have thought the more I have wondered that something has not been done. While every thing else has been receiving due consideration from our public councils, this first great life spring of mankind, has been overlooked. While military schools have been established and supported by the bounty of government, where the arts of WAR in all their multiform departments, have been taught and learned in all the height of perfection, the more humble yet far more important arts of PEACE have been left neglected—scattered in particles to stand by their own strength, or fall by their own weight, without the least official encouragement or means of concentration of effort.

I rejoice however to know that this important subject is now receiving considerable attention. A better day I trust is dawning upon him who tills the earth. It may be deemed intrusive for a stranger among the contributors to the Farmer to suggest plans; but feeling a sense of its importance, and observing an invitation from one of its distinguished correspondents, Mr. D. BRADLEY, to give opinions, &c. I would suggest, 1st. That a central institution be established for the state on the manual labor system; and in order to facilitate access, and to diffuse and dispense its blessings throughout the community, I would have branches or auxiliaries in most or all the counties; or establish them independently on a plan similar to the poor house system: and I look with confidence to the day when the temperance cause shall have obtained its ultimate object, that this very index of misery, the *poor house*, may be dedicated to the noble object of scientific agriculture. So may it be!

But to return. Reader, you may say this is a bold measure—that it covers too broad a field. I reply—we can as easily support these schools as we can the poor houses just mentioned, and to much more advantage—yea, and a much nobler purpose, a higher destiny would await the inmate. Finally, as to their internal regulation, I would insist first on the most rigid virtue and practical sobriety. The mind should be first directed to these great and cardinal principles. The pupil should be taught to love his country and revere the Author of his being. Nor should this be merely speculative. The noblest feelings of our nature should be enlisted in support of the laws of God and our country. He should be learned more than merely to say, *O, I love my country, I am a true man—republican—a disinterested patriot. I revere the laws of God and my country. O yes do I, yes; I would lay down my life at freedom's altar. Indeed would I!* LIBERTY! *O sacred sound!*" and in the very midst of this profusion of external professions, be known to violate with a high hand these very laws for which he professes so much concern, in drinking, gambling, sabbath breaking, horse racing, and in other kindred vices. How many are there of this description who are termed Americans!

The body and mind should be exercised and disciplined, each in its proper department. Scientific and practical agriculture should take the lead of all other branches; then elementary science, and the crowning piece should be general knowledge. General intelligence is infinitely better calculated to render a man useful than the study of a particular profession.

On practical application it might be found that these suggestions are made altogether at random. Be this as it may, I am perfectly settled in the opinion that the Legislature, with a settled purpose, should take this subject in hand.

C. ROBINSON.

Clarendon, Jan. 1, 1834.

For the Genesee Farmer.

Upheaving of Plants by Frost.

I have lately seen an attempt to explain how plants are thrown out by the frost. The writer says, "It is the effect of frost to *unite more firmly the finer parts of the soil*, and to disengage and throw out large substances such as posts, stones, and plants not well rooted." I suppose there is some mistake here. The effect of frost is undoubtedly to render soils *lighter* and *looser*; hence writers on agriculture have recommended to turn up the ground for a spring crop, to the winter; and hence gardeners have been particular to ridge heavy loams near the close of the season. It is well known that when the ground freezes it expands, and rises higher than it was before; and those who have seen in frosty weather, large stones or rocks which just come to the surface in moist land, may remember that the ground was raised an inch or two higher than it was before, the stone or rock appearing as if it had settled down. In this there is no mistake; for when the earth thaws, it settles back round the stone as low as it was before, excepting the difference occasioned by the increased porosity of the soil.

From loose soils which hold much water, plants are the most liable to be ejected. Those who have examined with attention what has been called *black frost*, will be at no loss to comprehend how this effect is produced. Crystals of ice may often be found in wet soils as long as one's finger, which have lifted up the dead leaves, or fibrous rooted plants spread on the surface; and on walking over such places, we sometimes break in at every step, to the depth of three or four inches. On plants that are not well rooted, the effects are as follows: The surface freezes first and fastens round the plant; the crystals of black frost protrude upwards, and easily lift the root from the soft and unfrozen earth below. When a thaw commences, the crystals dissolve; the surface settles down, but with no power to restore the roots to their former places; and not unfrequently they are left entirely exposed. In soils that are less porous the effect will be less; and in dry, *compact* soils, it is scarcely perceptible. F.

For the Genesee Farmer.

MESSRS. L. TUCKER & Co.—I apprehend that your correspondent, A Practical Gardener, need give himself no uneasiness about fruits medicated with mercury. The article in its crude, or metalic state, I believe perfectly inert—insomuch that a man may drink half a pint or a pint without the least injury; and that it is sometimes given in cases of bilious cholic and acts by its weight alone. But take a portion of this mercury or quick silver, say 2 drachms, with 2 drachms of honey, triture them together in water for half an

hour busily—during this operation the mercury will become oxydated and minutely divided, when it will become a very active medicine. Spread this mixture on the roots of a tree, the mercury will be carried with the water of the soil into the circulation of the plant; but living plants throw off all oxygen, through the pores of the bark and leaves, so that the mercury will soon return to its metallic state, and be perfectly inert. In this as in most other cases, an over ruling Providence seems to have guarded against our being injured or poisoned by any injurious substance taken into the circulation of plants by the roots.

Yours, &c. R. M. W.

Potter, Jan. 15, 1834.

For the Genesee Farmer.

Culture of Turneps.

For the consolation of O. P. Q. I will state my success in the Turnep culture:

The soil was gravel, a clover ley,—eighteen loads of coarse manure spread to the acre in April, and turned in for corn. The corn being destroyed by the cut worm, and having learnt from the Farmer that the Swedish Turnep might be planted as late as the 23d of June, the ground, which at that time was quite green, was harrowed and furrowed two and a half feet apart. Dropt the seed along in the furrows, and covered by hand on the 24th of June. With much persuasion got my hands to weed them, but they would not transplant to fill vacancies. They were ploughed twice, wed once and hoed once. One-fourth of an acre was planted—vacancies reduced by estimate to one-sixth of an acre.

The expenses were—

Five loads of manure, at 12½ cents...	$0,62½
Drawing do. one fourth day, 2 hands.....	75
Ploughing, half a day.....	50
Harrowing, one-fourth day.....	50
Sowing, one day.....	75
Weeding and ploughing, 2 days.....	1,75
Hoeing and ploughing, 1 1-2 day.....	1,50
Seed.....	12½
Harvesting, topping, burying, and bringing tops for stock, 2 hands 2 days....	3,50
	$10,00
Produce—200 bushels, at 25 cents..	$50,00
Leaving a profit of.....	$40,00

C. S. BUTTON.

Newark, Wayne co., Jan. 11, 1834.

For the Genesee Farmer.

Canada Thistles.

(Concluded from p. 22.)

The last season I planted with corn a small piece of about 4½ acres, much infested with thistles. It was planted with the express view of killing them—they were spread over a great part of the ground, but were small, the land having lain in pasture 12 years without ploughing, and had become what is termed sward-bound, which checks the growth, although it does not kill the thistle. The same course was pursued as in former years, and the business was well and regularly attended to. But few appeared after the first of September, but they were not neglected as long as one was to be found. I think they are all destroyed; but to make the thing doubly sure, I intend to have it planted next season.

A small piece at one end of this ground was planted with potatoes, on which I had never noticed any thistles. They however made their appearance, and were cut off with the rest. But when the tops of the potatoes began to fall on and cover the ground, it was with difficulty that the thistles could be found, and probably enough has escaped to keep the roots alive, and more or less will make their appearance another year. I therefore would advise never to plant potatoes where, and when, the great object is to destry the thistle. On another account, I consider corn much the best crop to plant with this view. The roots of this plant, if it grows strong, run through and fill the ground with small fibres, which has a tendency to keep the ground dry and hard; at the same time the tops form a shade, and altogether seem to have the effect of checking the growth of the thistle, and aid in the operation of destroying it.

To prevent the necessity of going over the ground as often as was required with the hoe, I last spring had made some iron tools not unlike a small light crowbar, flattened at the lower end to about a hand's breadth and length, and steeled. With this tool, in soft mellow ground, the thistle may be taken up to the depth of six to twelve inches; but the process is much slower, and perhaps the time employed in killing them in this way, although the operation is not so often to be performed, is equal to doing it with a hoe, with which the ground is much quicker gone over.

The horizontal root of this plant, so often mentioned as its principal instrument of propagation, will be found at various depths, according to soil. In lands under the plough, and in other rich mellow ground, they push themselves along, in every direction from the main patch, and at every few inches send up a branch to the surface. On carefully uncovering a space several feet square, I have found them in a manner connected and tied together with this root. Whenever they can be taken up below the horizontal root, they are mostly destroyed with once going over, and with the iron tool before described this is frequently done; and where there may be a very small patch in a distant field, the inconvenience of looking to it as often as would be necessary with a hoe, might be avoided by taking this course. In wet rainy seasons, like the two last, I find they spread themselves much faster than in dry ones. The ground being soft, and the roots strong and vigorous, and meeting less resistance, they will push along a considerable distance in one summer.

About nine years since I had made a string of half stone fence, with posts, and boards on top. The ground on which the wall was placed, was rich bottom, and was set there to withstand the spring floods. It was made on the line of one of my neighbor's land, on which at a small distance was a large patch of Canada thistles. In a short time they pushed along and reached the wall, and have run along in, and under it, more than thirty rods, or fifteen each way, in about seven years. Having heard that salt and strong brine would kill them, I procured, three years ago, a quantity taken from fish barrels, and taking off the top stones of the wall so as to come nearer the roots, the brine and salt was put on very bountifully. It had the effect of killing the tops of the thistles, and wilted them down; but the next summer they came up through the wall as thrifty as before. I see no remedy in a case like this, but to remove the wall, otherwise they will travel to each end of it, and from this lodgment spread over the adjoining field. And I have no doubt, that if a strip of rich, mellow land, reaching a distance of twenty miles, could be had, unobstructed by rivers, swamps, &c. a low stone wall placed thereon, and a family of thistles set a going at one end, but that they would in course of time reach the other, and without the agency of any seed.

On my mowing and pasture lands, such as are wet and never ploughed, there are some patches of the thistle; which have for twenty-five years past remained nearly stationary. They are always mowed off in July before the seed is ripe, and if necessary a second time to prevent their seeding. In this kind of hard sward land, they are small and puny, and comparatively give but small trouble and annoyance.

Whenever we have succeeded in expelling the thistle from our tillage lands, which is the extent of my expectations, in respect to my own, and all that I would at present advise others to attempt doing, they may, I am confident, with little care and no expense, be easily kept off afterwards. The seedling thistle is very small, and as easily destroyed as a pigweed, should they happen to be observed. It requires several years for them to form any considerable patch—their greatest security is their not being noticed, until by their side or horizontal roots they have run out in different directions. Small patches may be killed by a deep covering of any thing that will keep them under, and prevent them from shooting up to the surface. This I have done with pummice put on to some very small bunches, near my cider mill. Salting cattle and sheep often on small pieces will have the like effect; but this must be done very often and through the season of growing. The salt itself does not have the effect of destroying the roots, because it cannot reach them, but the frequent licking of the spot by the cattle takes off the shoots as fast as they come above the ground, which is the same in its effects, as hoeing them off. All these methods, however, cannot be practiced except on a very small scale.

I know of no plant or bush, with which the Canada thistle so nearly compares in its habits, and modes of propagation, as the common Elder. This, like the thistle, has its seed, and its horizontal roots with which to form patches; and like it, also, in not being to be destroyed by cutting off the tops once, or even twice, a year, but must be rooted out. The same treatment which kills the thistle would have the like effect on the elder; but this would be attended with too much trouble, for the small number usually on our farms,—the better way, therefore, is to dig and root them out at once. But I think it as great an absurdity for a farmer to say, that he will not attempt to destroy the clumps of elder on his mowing land, because his neighbor lets them alone to seed, as to refuse to kill the thistle on his plough land for the like cause. Since in either case, when they are once eradicated they are easily kept out; let his neighbors' practice be what it may.

In my various experiments, I have tested this method of destroying the thistle sufficiently to convince myself at least that it is very practicable, and attended with but little expence, if persued with due care and perseverance. If no failures had happened in my several and yearly

attempts, another year would have completed the routine of my ploughing fields, but it will now take three—and as I am less than that, from three score and ten, and have a wish to complete what I have undertaken, I must be careful to avoid the like errors in future. I close this long article with the hope that it may be of use, by inducing some of my brother farmers, who have a good stock of resolution and perseverance, and a plenty of Canada thistles on their land, to try the experiment, at first, if they please, on a small scale. I shall be pleased to be informed of the results, and particularly of their success. In the interim, I would inform them that I have allotted and set off for the ensuing year, a pretty large job of the same sort. The ground on two fields being already once ploughed for corn, on which there are patches of thistles in plenty, enough to cover three and a half or four acres, of which, provided my health is spared, I hope to be able to give a good account at the close of another year. A SUBSCRIBER.

NOTE.—I would add one more remark, that no grass or weeds of any kind, must be permitted to grow on the spots or patches during the season of the operation, as they conceal the thistle sprouts, which may consequently escape the hoe. I have usually, on spots where the thistles were thick and intermixed with weeds, hoed the ground well all over as often as was necessary to destroy the weeds, and at the same time the thistle was taken off also.

For the Genesee Farmer.

Legislative Aid to Agriculture.

The time has arrived when numerous and respectable portions of our citizens are in favor of a state appropriation for the improvement of agriculture, but a difference of opinion exists as to the best mode of adplying it. The subject is of vast importance, and ought to be deliberately discussed and candidly investigated, before it is acted upon. If the state school should be established, I fear that its effects will be very different from what its friends anticipate. Instead of its pupils being made industrious and intelligent cultivators, I apprehend that a large proportion of them will become visionary farmers, destitute of habits of industry and economy. It is very desirable that cultivators of the soil should be scientific and intelligent men, capable of sustaining the moral and political relations of society. The literary science appertaining to agriculture ought to be taught in all our good schools, and equally desirable that it should be possessed by the mechanic as well as the farmer. The success of a cultivator depends much more on his habits of industry and economy than on his scientific acquirements; and it would be next to impossible that youth should acquire these habits where there was six or eight hundred of them congregated on one farm. The home of a good cultivator is the best agricultural school to which a youth can be sent to learn farming. His scientific acquirements ought to be learnt at another school.

But should the expectations of the most sanguine supporters of the school be realized, its operations would be slow and partial. A state appropriation for the benefit of agriculture, ought to diffuse a spirit of experimental investigation and laudable emulation for useful improvement among the cultivators of the soil in general; and I know of no way that this can be so easily and efficiently accomplished as through the medium of well organized societies.

I am much pleased with the general features of Mr. Hawley's plan, but would propose as an amendment, that none of the public money be expended at the county fairs in premiums or for pay of officers, but distribute it all among the towns in the county who will comply with the requirements of the law, in proportion to the number of acres of improved land in each town, to be ascertained from the last assessment roll.—Each town to form a society as a branch of the county society, with similar officers, together, with a viewing committee, whose duty it shall be to inspect the farms and crops intended for competition, at least twice in the season of their growth, and ascertain the soil, tillage, quantity of labor, and amount of the crop, and report the same to the annual meeting of the society, together with such improvements as they may think necessary, and such experiments as they deem advisable to be made the ensuing season. Each town to hold its exhibition at least one week previous to the county Fair for the exhibition of animals and the products of agriculture, horticulture, and the domestic arts; and the first, second, and third best of all exhibited at the town fairs, shall be taken to the county fair, where the towns shall be considered competitors (and not individuals.) All animals to be accompanied with a statement of their breed, age, and manner of rearing; and crops with a statement of the soil, tillage, labor, and quantity of the crop, with a sample thereof. The Secretary of each town society to transmit to the Secretary of the county society on or before the day of the fair a copy of all their reports and proceedings; and the Secretary of each county shall transmit the whole of the town reports together with the proceedings of the county society to the state board of publishers, who shall select and publish annually such as they deem useful, and distribute the same, at least three copies to each town. The towns to appropriate their public money as follows:—Pay one dollar per day to each of the inspecting committee for the time spent in viewing the farms and crops—the residue in whole or in part to be paid as premiums at the town exhibitions, or expended for the purchase of choice seed and breeds of animals to be distributed in the town—to be determined by a vote of the society at their annual meeting. If the money is expended in premiums, all animals and articles which it is paid on shall be taken to the county fair. If the money is not expended in premiums, all who have to be at the expense of attending the county fair, shall be paid a reasonable compensation, out of the public money, to be determined by the town managers previous to their exhibition. Any town neglecting or refusing to comply with the requisitions of the law, not to receive any public money. If it is deemed advisable to raise by subscription a sum equal to the public money let it be done in the towns.

By the above organization the effects of the society would be brought home to every cultivator. The county fair would be general and interesting, having a sample of the best from each town, and the annual state volume would be a fund of useful knowledge to all who are willing to read. A FARMER OF MONROE.

Notices.

CATTLE.—In the former volumes of the Farmer, but little was said upon the improvement of our native Cattle, or of the improved breeds which have been of late years introduced into our country. The subject was first presented to our readers in a tangible form, by the excellent communication of ULMUS, page 404, vol 3, which has had the effect to call out several writers upon the subject. The article commenced in our last, and continued in this paper, is from Judge BUEL. Besides this, which we shall endeavor to complete next week, we have received communications from "R." and QUERCUS, on the same subject, which will follow in succeeding numbers of the Farmer. These communications will furnish our readers with a fund of interesting information which will enable them not only to judge of the comparative merits of the different breeds of Cattle, but will enable such as choose to make the experiment, to commence the system of improvement on our native stock, which has brought the improved breeds into so high repute.

PETITIONS.—It is important that all persons who have circulated Petitions to the Legislature in favor of an appropriation in aid of Agriculture should forward them to Albany at as early a day as possible.

We tender our thanks to the Rev. HENRY COLMAN, for a copy of his Address before the Hampshire, Franklin and Hampden Agricultural Society in October last. We shall take an early opportunity to transfer a large portion of it to our pages.

NEW MAP OF NEW YORK.—Messrs. J. H. Colton & Co. have issued proposals for a new Map of this State, prepared by David H. Burr, Esq., a gentleman heretofore employed by the Legislature to execute a map and atlas of the several counties for their use. We have had an opportunity of examining a sheet of the proposed map, embracing the south eastern section of the State. It is engraved in a superior manner, by S. Stiles & Co. who are said to be among the best map engravers in our country. The sheet contains an enlarged map of the city and county of New-York, together with a view of the adjacent villages on Long-Island, and in New-Jersey, and the several islands in the bay, showing the relative situation of the City to the surrounding country. The Map, when completed is also to contain correct plans of the Cities of Albany, Troy, Hudson, Schenectady, Utica, Buffalo, and the (to be) City of Rochester, together with the villages of Syracuse, Salina, Oswego, Auburn, Ithaca, and Lockport. In relation to the correctness of the delineations and the excellence of the engraving, we have the testimony of Surveyor General De Witt, who says—"The style in which it is drawn, and the engraving, are of the first order; and considering the experience which Mr. Burr has had, and his indefatigable industry in procuring the best materials, in order to correct what has been discovered as errors in former maps, I have no doubt this will be an improvement on all that have preceded it, in correctness as well as neatness of execution."

A Comparison between Good

HOUSEWIFERY AND EVIL.

[*By Thomas Tusser—Died*, 1580.]

Ill huswifery lieth
Till nine of the clock:
Good huswifery trieth
To rise with the cock.

Ill huswifery trusteth
To him and to her:
Good huswifery lusteth
Herself for to stir.

Ill huswifery careth
For this nor for that:
Good huswifery spareth
For fear ye wot what.

Ill huswifery pricketh
Herself up in pride:
Good huswifery tricketh
Her house as a bride.

Ill huswifery one thing
Or other must crave:
Good huswifery nothing
But needful will have.

Ill huswifery moveth
With gossip to spend:
Good huswifery loveth
Her household to tend.

Ill huswifery brooketh
Mad toys in her head:
Good huswifery looketh
That all things be fed.

Ill huswifery bringeth
A shilling to naught:
Good huswifery singeth,
Her coffers full fraught.

Ill huswifery rendeth,
And casteth aside: [eth,
Good huswifery mend-
Else would it go wide.

Ill huswifery craveth
In secret to borrow;
Good huswifery saveth
To-day, for to-morrow.

Ill huswifery pineth,
(Not having to eat):
Good huswifery dineth
With plenty of meat.

Ill huswifery letteth
The devil take all:
Good huswifery setteth
Good brag of a small.

The Pleasures of Science.

[CONTINUED FROM P. 24.]

In the third place science contributes to our enjoyment *by the grand and sublime objects she presents before us.* In consequence of the investigations which have been made to determine the distances and magnitudes of the heavenly bodies, objects of magnificence and grandeur are now presented to the view of the enlightened mind of which former ages could form no conception. These objects are magnificent in respect of *magnitude*, of *motion*, of *the vast spaces which intervene between them*, and *of the noble purposes for which they are destined.*

What a sublime idea, for example, is presented to the view by such an object as the planet *Jupiter*,—a globe fourteen hundred times larger than the world in which we dwell, and whose surface would contain a population a hundred times more numerous than all the inhabitants that have existed on our globe since the creation! And how is the sublimity of such an idea augmented when we consider, that this immense body is revolving round its axis at the rate of twenty-eight thousand miles in an hour, and is flying, at the same time, through the regions of space, twenty-nine thousand miles every hour, carrying along with it four moons, each of them larger than the earth, during its whole course round the center of its motion! And if this planet, which appears only like a luminous *speck* on the nocturnal sky, presents such an august idea, when its magnitude and motions are investigated, what an astonishing idea is presented to the mind when it contemplates the size and splendor of the *sun*,—a body which would contain within its bowels nine hundred globes larger than Jupiter, and thirteen hundred thousand globes of the bulk of the earth,—which darts its rays in a few moments to the remotest bounds of the planetary system, producing light and color, and life and vegetation throughout surrounding worlds! And how must our astonishment be still increased, when we consider the *number* of such globes which exist throughout the universe; that within the range of our telescopes more than eighty millions of globes, similar to the sun in size and in splendor, are arranged at immeasurable distances from each other, diffusing their radiance through the immensity of space, and enlivening surrounding worlds with their benign influence, besides the innumerable multitudes which, our reason tells us, must exist beyond all that is visible to the eyes of mortals!

But the *motions*, no less than the magnitudes, of such bodies present ideas of sublimity. That a globe* as large as the earth should fly through the celestial regions with a velocity of seventy-six thousand miles an hour,—that another globe† should move at the rate of one thousand seven hundred and fifty miles in a minute, and a hundred and five thousand miles an hour,—that even Saturn, with all his assemblage of rings and moons, should be carried along his course with a velocity of twenty-two thousand miles an hour,—that some of the comets, when near the sun, should fly with the amazing velocity of eight hundred thousand miles an hour,—that, in all probability, the sun himself, and all his attending planets, besides their own proper motions, are carried around some distant center at the rate of more than sixty thousand miles every hour; and that thousands and millions of systems are moving in the same rapid manner, are facts so astonishing, and so far exceeding every thing we behold around us on the surface of the earth, that the imagination is overpowered and confounded at the idea of the astonishing forces which are in operation throughout the universe, and of the power and energy by which they are produced; and every rational being feels a sublime pleasure in the contemplation of such objects which is altogether unknown to the ignorant mind.

The vast and *immeasurable spaces* which intervene between the great bodies of the universe likewise convey august and sublime conceptions. Between the earth and the sun there intervenes a space so vast, that a cannon-ball, flying with the velocity of five hundred miles an hour, would not reach that luminary in twenty years; and a mail-coach moving at its utmost speed, would not arrive at its surface in less than twelve hundred years; and, were it to proceed from the sun towards the planet Herschel, it would not arrive at that body till after the lapse of *twenty-two thousand years.* And yet the sun, at that immense distance, exerts his attractive energy, retains that huge planet in its orbit, and dispenses light and color, life and animation, over every part of its surface. But all such spaces, vast as at first sight they appear, dwindle as it were into a span, when compared with those immeasurable spaces which are interposed between us and the regions of the stars. Between the earth and the nearest fixed star a space intervenes so vast and incomprehensible, that a ball flying with the velocity above mentioned, would not pass through it in four million and five hundred thousand years; and as there are stars, visible through telescopes, at least a hundred times farther distant from our globe, it would require such a body four hundred millions of years, or a period 67,000 times greater than that which has elapsed since the Mosaic creation, before it could arrive at those distant regions of immensity.

The *grand and noble designs* for which the great bodies to which I have adverted are intended, suggest likewise a variety of interesting and sublime reflections. These designs undoubtedly are, to display the ineffable glories of the Eternal Mind,—to demonstrate the immensity, omnipotence, and wisdom of Him who formed the universe,—and to serve as so many worlds for the residence of incalculable numbers of intelligent beings of every order. And what an immense variety of interesting objects is presented to the mind when its views are directed to the numerous orders and gradations of intelligence that may people the universe,—the magnificent scenes that may be displayed in every world,—their moral economy, and the important transactions that may have taken place in their history under the arrangements of the Divine government!

Such are some of the scenes of grandeur which science unfolds to every enlightened mind. The contemptation of such objects has an evident tendency to enlarge the capacity of the soul, to raise the affections above mean and grovelling pursuits, to give man a more impressive idea of the *dignity* of his rational and immortal nature, and of the attributes of that Almighty being by whom he is upheld, and to make him *rejoice* in the possession of faculties capable of being exercised on scenes and objects so magnificent and sublime.

* The planet Venus. † The planet Mercury.

A *Swan* recently died in England at the age of 200 years.

Recipes in Domestic Affairs.

PRESSED BEEF.—Take a piece of the flank, brisket, or other part, freed entirely from bone, pickle it, for five or six days, in a brine made of common salt and sugar in the proportion of a quarter of a pound of sugar to a pint of salt; then boil it gently till very tender; wrap it in a strong cloth, and press it under a heavy weight, or in a cheese press till perfectly cold. It is fine, when eaten cold, or for Sandwiches.

HUNTER'S BEEF.—Remove the bone from a round of beef weighing twenty-five pounds; and when it has hung two or three days, take three handsful of salt, four ounces of brown sugar, one nutmeg, half an ounce of cloves and some pimento; reduce them all to a fine powder, and rub well the beef, turning and rubbing it daily for two or three weeks.—When to be dressed, dip it into cold water to take off the loose powder; bind it tight with tape; put it into a pan with a tea-cup of water at bottom; put over the pan a brown crust and paper; and bake it five or six hours.—When cold remove the crust and fillet. Cut with a sharp knife, and serve cold.

ITALIAN BEEF STEAKS.—Cut your stake large, from a rump, that has been well hung, or from any tender part; beat it with a rolling pin, and season with pepper, salt, and onion, if approved; lay it in an iron stew-pan, with a close cover without water; set near the fire, let it have a strong heat; but be careful it does not burn. In two or three hours, it will be quite tender; serve with its own gravy.—*Northern Farmer.*

Treatment of Domestic Animals.

Keep up such a sort of social and friendly intercourse with the tenants of your stables, barn yards, and even your pig stye, that they may be as tame as kittens, and prick up their ears and wag their tails with joy and gratitude whenever you approach them. Animals will not thrive even on custard and apple pye, if they must eat their allowance with fear and trembling, expecting every moment to be all but annihilated by their cross keeper; who, we are sorry to say, is sometimes more of a brute than any quadruped under his care. Besides, if any of your stock should be sick or lame, and need doctoring, you can better handle, and give them their prescriptions, if they are accustomed to kind and familiar treatment, than if harshness and bad usage had rendered them as wild as partridges, and cross as catamounts.—*New-England Farmer.*

For Sale,

A LEVELING INSTRUMENT or spirit level, with a tripod—price 75 dollars. Apply to DAVID THOMAS,
Jan. 10, 1834. near Aurora in Cayuga county.

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ASA ROWE.

Batavia, Genesee Co., N. Y., Oct. 5, 1833

Orders for Mr. Rowe's Nursery received by the Publishers of this paper.

Catalogues may be had at the office of the Genesee Farmer—will be sent to those who wish them gratis. October 5, 1833. f6m